UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,728	04/16/2004	Frank Tien	USP2423A-AMT	8823

30265 7590 02/27/2007

RAYMOND Y. CHAN
108 N. YNEZ AVE., SUITE 128
MONTEREY PARK, CA 91754

EXAMINER	
PIZIALI, ANDREW T	
ART UNIT	PAPER NUMBER
1771	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/825,728	TIEN, FRANK	
	Examiner	Art Unit	
	Andrew T. Piziali	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15,22,23,33 and 334* is/are pending in the application.

4a) Of the above claim(s) *15,22 and 23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33 and 34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/12/2006 has been entered.

Claim Objections

2. Claim 33 is objected to because of the following informality: The word "that" should be deleted from line 3.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 34 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. The specification does not mention said constituents in said respective amounts.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 33 and 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 33 and 34, the use of "predetermined" has been held to be indefinite in a claim where it simply means determined beforehand, *Joseph E. Seagram & Sons, Inc. V. Marzall*, Comr. Pats., 84 USPQ 180 (Court of Appeals, District of Columbia).

Regarding claim 34, the claim mentions ratios, but lists amounts. It is not clear if the applicant is claiming ratios or amounts (parts per hundred).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 3,608,006 to Hosoda et al. (hereinafter referred to as Hosoda) in view of USPN 4,446,254 to Nakae et al. (hereinafter referred to as Nakae) in view of Applicant's Disclosure.

Regarding claims 33 and 34, Hosoda discloses a shoe lining for footwear structure comprising a foaming cushion layer made of a composition of a predetermined amount of LDPE (polyethylene made by high pressure) and a predetermined amount of azodicarbonamide as a blowing (foaming) agent, and a fabric layer integrally adhered to at least one side of the cushion layer (see entire document including column 1, lines 4-16, column 2, lines 18-27, column 2, lines 50-58, and column 3, lines 21-30). Hosoda discloses that a further sheet of cover layer made of fabric may be integrally adhered to the other side of the cushion layer (column 3, lines 62-66 and column 4, lines 62-64). Hosoda discloses that that the lining layer and the cover layer are integrally adhered to the outer and inner sides of the foaming cushion layer (column 3, lines 67-69).

Hosoda discloses that the cushion layer may be made by milling the polyethylene with a cross-linking agent and a foaming agent, molding the composition into a sheet, and heating the composite at a temperature to form a cross-linked foam cushion (column 1, lines 43-53). Compare to the method disclosed on page 8, lines 6-14 of the current specification. Hosoda does not specifically mention the cushion layer being waterproof and breathable, but considering that the cushion layer is made of identical materials by a substantially identical process, it appears that the cushion layer is inherently waterproof and breathable.

Absent a showing to the contrary, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious

from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show obvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Hosoda discloses that additives including ZnO and a stearic acid salts may be added to the cushion layer (column 3, lines 51-61), but Hosoda does not appear to specifically mention the addition of ZnSt (zinc stearate) or a pigment. Nakae discloses that it is known in the crosslinked polyolefin foam art to add a pigment processing agent when a certain color is desired (see entire document including column 8, lines 44-50). Nakae also discloses that it is known in the crosslinked polyolefin foam art to add zinc stearate, a stearic acid salt, as a lubricant and/or expansion agent (column 11, lines 48-62 and column 24, lines 60-68). It would have been obvious to one having ordinary skill in the art at the time the invention was made to add a pigment and zinc stearate to the cushion layer, as taught by Nakae, because the additives would allow the cushion to have a desired color and because the additives would function as a lubricant and/or an expansion agent.

Hosoda discloses that the liner may be used for shoe materials (column 2, lines 18-27), but Hosoda does not appear to specifically mention seaming together stitched edges of the liner by thermoplastical sealing. The applicant discloses that it is known in the art (shoe/boot liners) to seam together stitching edges by thermoplastic sealing (page 8, lines 19-21). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the liner in the shape of a boot by seaming together stitching edges by thermoplastic sealing, motivated by a desire to form boot liner with sealed edges.

Regarding claim 34, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the amounts of the constituents, such as claimed, because it is understood by one of ordinary skill in the art that the amounts determine properties such as foaming expansion (size and strength), color, and touch and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

9. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,435,346 to Ito et al. (hereinafter referred to as Ito) in view of USPN 3,608,006 to Hosoda in view of USPN 4,446,254 to Nakae in view of Applicant's Disclosure.

Regarding claims 33 and 34, Ito discloses a foaming cushion layer made of a composition of a predetermined amount of LDPE and a predetermined amount of azodicarbonamide as a blowing (foaming) agent (see entire document including column 3, lines 16-35, column 7, lines 50-61, and column 8, lines 10-21).

Ito discloses that the cushion layer may be made by blending the constituents, shaping, heating to a cross-linking temperature, and mechanically deforming the foamed product to rupture the cell membranes to transform closed cells to open cells (column 3, lines 16-35). Compare to the method disclosed on page 8, lines 6-14 of the current specification. Ito does not specifically mention the cushion layer being waterproof and breathable, but considering that the cushion layer is made of identical materials by a substantially identical process, it appears that the cushion layer is inherently waterproof and breathable.

Ito does not appear to mention integrally adhering a fabric layer to each side of the cushion layer to form a shoe lining for footwear, but Hosoda discloses that it is known in the foamed polyethylene art to integrally adhere a fabric lining layer to both sides of a cushion layer so that the cushion layer possesses a fabric feel and appearance and because it can be used for a broad array of consumer goods including a shoe lining for footwear (see entire document including column 1, lines 4-16, column 2, lines 18-27, column 3, lines 62-69, and column 4, lines 62-64). It would have been obvious to one having ordinary skill in the art at the time the invention was made to integrally adhere a fabric lining layer to both sides of the cushion layer and use the article as a shoe lining for footwear, as taught by Hosoda, because the cushion layer would possess fabric feel and appearance and would provide a shoe with cushioning.

Ito discloses that additives including ZnO, pigment, and/or a stearic acid may be added to the cushion layer (column 8, lines 35-57), but Ito does not appear to specifically mention the addition of ZnSt (zinc stearate). Nakae discloses that it is known in the crosslinked polyolefin foam art to add zinc stearate, a stearic acid, as a lubricant and/or expansion agent (see entire document including column 11, lines 48-62 and column 24, lines 60-68). It would have been

obvious to one having ordinary skill in the art at the time the invention was made to add zinc stearate to the cushion layer, as taught by Nakae, because the additive would function as a lubricant and/or an expansion agent.

Hosoda discloses that the liner may be used for shoe materials (column 2, lines 18-27), but Hosoda does not appear to specifically mention seaming together stitched edges of the liner by thermoplastical sealing. The applicant discloses that it is known in the art (shoe/boot liners) to seam together stitching edges by thermoplastic sealing (page 8, lines 19-21). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the liner in the shape of a boot by seaming together stitching edges by thermoplastic sealing, motivated by a desire to form boot liner with sealed edges.

Regarding claim 34, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the amounts of the constituents, such as claimed, because it is understood by one of ordinary skill in the art that the amounts determine properties such as foaming expansion (size and strength), color, and touch and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

10. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,242,634 to Matsumoto et al. (hereinafter referred to as Matsumoto) in view of USPN 3,608,006 to Hosoda in view of USPN 4,446,254 to Nakae in view of Applicant's Disclosure.

Regarding claims 33 and 34, Matsumoto discloses a foaming cushion layer made of a composition of a predetermined amount of LDPE and a predetermined amount of azodicarbonamide as a foaming agent (see entire document including column 5, lines 15-54 and column 5, lines 55-66).

Matsumoto discloses that the cushion layer may be made by blending the constituents, shaping, irradiating and thus heating, decomposing cross-linking and foaming agent, forming cells capable of rupture, exerting mechanical deformation thereby stabling intercommunication among the cells (column 2, lines 30-52). Compare to the method disclosed on page 8, lines 6-14 of the current specification. Matsumoto does not specifically mention the cushion layer being waterproof and breathable, but considering that the cushion layer is made of identical materials by a substantially identical process, it appears that the cushion layer is inherently waterproof and breathable.

Matsumoto does not appear to mention a fabric layer integrally adhered to one side of the cushion layer, but Hosoda discloses that it is known in the foamed polyethylene art to integrally adhere a fabric lining layer to both sides of a cushion layer so that the cushion layer possesses a fabric feel and appearance and because it can be used for a broad array of consumer goods including a shoe lining for footwear (see entire document including column 1, lines 4-16, column 2, lines 18-27, column 3, lines 62-69, and column 4, lines 62-64). It would have been obvious to one having ordinary skill in the art at the time the invention was made to integrally adhere a fabric lining layer to both sides of the cushion layer and use the article as a shoe lining for footwear, as taught by Hosoda, because the cushion layer would possess fabric feel and appearance and would provide a shoe with cushioning.

Matsumoto discloses that additives including ZnO, pigment, and/or a stearic acid may be added to the cushion layer (column 6, line 64 through column 7, line 14), but Matsumoto does not appear to specifically mention the addition of ZnSt (zinc stearate). Nakae discloses that it is known in the crosslinked polyolefin foam art to add zinc stearate, a stearic acid, as a lubricant and/or expansion agent (see entire document including column 11, lines 48-62 and column 24, lines 60-68). It would have been obvious to one having ordinary skill in the art at the time the invention was made to add zinc stearate to the cushion layer, as taught by Nakae, because the additive would function as a lubricant and/or an expansion agent.

Hosoda discloses that the liner may be used for shoe materials (column 2, lines 18-27), but Hosoda does not appear to specifically mention seaming together stitched edges of the liner by thermoplastical sealing. The applicant discloses that it is known in the art (shoe/boot liners) to seam together stitching edges by thermoplastic sealing (page 8, lines 19-21). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the liner in the shape of a boot by seaming together stitching edges by thermoplastic sealing, motivated by a desire to form boot liner with sealed edges.

Regarding claim 34, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the amounts of the constituents, such as claimed, because it is understood by one of ordinary skill in the art that the amounts determine properties such as foaming expansion (size and strength), color, and touch and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

11. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Application Publication 56-146732 to Ichii et al. (hereinafter referred to as Ichii) in view of USPN 3,608,006 to Hosoda in view of USPN 4,446,254 to Nakae in view of Applicant's Disclosure.

Regarding claims 33 and 34, Ichii discloses a foaming cushion layer made of a composition of a predetermined amount of LDPE and a predetermined amount of foaming agent (see entire document including patent abstract).

Ichii discloses a method of making a polyethylene resin open cell cellular body by partially decomposing a foaming (expanding) and a crosslinking agent in a foamable and crosslinkable composition of polyethylene resin material in a closed mold, then decomposing the remaining parts of the foaming and crosslinking agents under an atmospheric pressure to obtain a body with closed cells from the composition, and finally compressing the thus obtained body to cause the closed cells to be destructed (see column 1, lines 13-24 of USPN 6,517,764). Compare to the method disclosed on page 8, lines 6-14 of the current specification, which is noticeably word-for-word identical. Ichii does not appear to specifically mention the cushion layer being waterproof and breathable, but considering that the cushion layer is made of identical materials by an exactly identical process (word for word), it appears that the cushion layer is inherently waterproof and breathable.

Ichii does not appear to mention a fabric layer integrally adhered to one side of the cushion layer, but Hosoda discloses that it is known in the foamed polyethylene art to integrally adhere a fabric lining layer to both sides of a cushion layer so that the cushion layer possesses a fabric feel and appearance and because it can be used for a broad array of consumer goods including a shoe lining for footwear (see entire document including column 1, lines 4-16, column 2, lines 18-27, column 3, lines 62-69, and column 4, lines 62-64). It would have been obvious to one having ordinary skill in the art at the time the invention was made to integrally adhere a fabric lining layer to both sides of the cushion layer and use the article as a shoe lining for footwear, as taught by Hosoda, because the cushion layer would possess fabric feel and appearance and would provide a shoe with cushioning.

Hosoda discloses that the foaming agent may be azodicarbonamide (column 3, lines 21-30). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the foaming agent from any suitable foaming agent material, such as azodicarbonamide, as taught by Hosoda, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Hosoda discloses that additives including ZnO and a stearic acid salts may be added to the cushion layer to accelerate gas evolution (column 3, lines 51-61). Nakae discloses that it is known in the crosslinked polyolefin foam art to add a pigment processing agent when a certain color is desired (see entire document including column 8, lines 44-50). Nakae also discloses that it is known in the crosslinked polyolefin foam art to add zinc stearate, a stearic acid salt, as a lubricant and/or expansion agent (column 11, lines 48-62 and column 24, lines 60-68). It would

have been obvious to one having ordinary skill in the art at the time the invention was made to add a pigment, zinc oxide, and zinc stearate to the cushion layer, because the additives would allow the cushion to have a desired color, improve gas evolution, and because the additives would function as a lubricant and/or an expansion agent.

Hosoda discloses that the liner may be used for shoe materials (column 2, lines 18-27), but Hosoda does not appear to specifically mention seaming together stitched edges of the liner by thermoplastic sealing. The applicant discloses that it is known in the art (shoe/boot liners) to seam together stitching edges by thermoplastic sealing (page 8, lines 19-21). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the liner in the shape of a boot by seaming together stitching edges by thermoplastic sealing, motivated by a desire to form boot liner with sealed edges.

Regarding claim 34, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the amounts of the constituents, such as claimed, because it is understood by one of ordinary skill in the art that the amounts determine properties such as foaming expansion (size and strength), color, and touch and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Response to Arguments

12. Applicant's arguments have been considered but are mostly moot in view of the new grounds of rejection.

Regarding the submitted commercial success declaration, although the applicant asserts that the liner is responsible for the commercial success, the declaration fails to evidence that the commercial success alleged is directly derived from the invention claimed. Merely showing that there was commercial success of an article, which embodied the invention, is not sufficient. In a marketplace where the consumer is free to choose on the basis of objective principles, success may be the result of heavy promotion or advertising, shift in advertising, consumption by purchasers normally tied to applicant or assignee, or other business events extraneous to the merits of the claimed invention, etc. Commercial success may have been attributable to extensive advertising and position as a market leader before the introduction of the patented product). Success of invention could also be due to recent changes in related technology or consumer demand.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

atp

ANDREW PIZIALI
PRIMARY EXAMINER